

**APPENDIX I****ARTICLE III**

SECTION 2. The judicial power shall extend to all cases, in law and equity, arising under this Constitution, the laws of the United States, and treaties made, or which shall be made, under their authority; to all cases affecting ambassadors, other public ministers and consuls; to all cases of admiralty and maritime jurisdiction; to controversies to which the United States shall be a party; to controversies between two or more States; between a State and citizens of another State; between citizens of different States; between citizens of the same State claiming lands under grants of different States, and between a State, or the citizens thereof, and foreign States, citizens or subjects.

In all cases affecting ambassadors, other public ministers and consuls, and those in which a State shall be party, the Supreme Court shall have original jurisdiction. In all the other cases before-mentioned, the Supreme Court shall have appellate jurisdiction, both as to law and fact, with such exceptions, and under such regulations as the Congress shall make.

---

**APPENDIX II****UNITED STATES CODE  
TITLE 28**

SECTION 1251, B—The Supreme Court shall have original jurisdiction of: . . .

(3) all actions or proceedings by a State against the citizens of another State or against aliens.

**APPENDIX III**

**TREATY WITH THE UNITED STATES RELATING TO BOUNDARY  
WATERS AND QUESTIONS ARISING ALONG THE BOUNDARY  
BETWEEN CANADA AND THE UNITED STATES, SIGNED AT  
WASHINGTON, JANUARY 11, 1909.**

*Treaty relating to Boundary Waters and Questions arising  
along the Boundary between Canada and the United States,  
signed at Washington, January 11, 1909.*

His Majesty the King of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas, Emperor of India, and the United States of America, being equally desirous to prevent disputes regarding the use of boundary waters and to settle all questions which are now pending between the United States and the Dominion of Canada involving the rights, obligations, or interests of either in relation to the other or to the inhabitants of the other, along their common frontier, and to make provision for the adjustment and settlement of all such questions as may hereafter arise, have resolved to conclude a Treaty in furtherance of these ends, and for that purpose have appointed as their respective Plenipotentiaries:

His Britannic Majesty, the Right Honourable James Bryce, O.M., his Ambassador Extraordinary and Plenipotentiary at Washington; and

The President of the United States of America, Elihu Root, Secretary of State of the United States;

Who, after having communicated to one another their full powers, found in good and due form, have agreed upon the following Articles:—

*Preliminary Article.*

For the purposes of this Treaty boundary waters are defined as the waters from main shore to main shore of

the lakes and rivers and connecting waterways, or the portions thereof, along which the international boundary between the United States and the Dominion of Canada passes, including all bays, arms, and inlets thereof, but not including tributary waters which in their natural channels would flow into such lakes, rivers, and waterways, or waters flowing from such lakes, rivers, and waterways, or the waters of rivers flowing across the boundary.

#### ARTICLE 1.

The High Contracting Parties agree that the navigation of all navigable boundary waters shall for ever continue free and open for the purposes of commerce to the inhabitants and to the ships, vessels, and boats of both countries equally, subject, however, to any laws and regulations of either country, within its own territory, not inconsistent with such privilege of free navigation, and applying equally and without discrimination to the inhabitants, ships, vessels, and boats of both countries.

It is further agreed that so long as this Treaty shall remain in force this same right of navigation shall extend to the waters of Lake Michigan, and to all canals connecting boundary waters and now existing or which may hereafter be constructed on either side of the line. Either of the High Contracting Parties may adopt rules and regulations governing the use of such canals within its own territory, and may charge tolls for the use thereof; but all such rules and regulations and all tolls charged shall apply alike to the subjects or citizens of the High Contracting Parties and the ships, vessels, and boats of both of the High Contracting Parties, and they shall be placed on terms of equality in the use thereof.

#### ARTICLE 2.

Each of the High Contracting Parties reserves to itself, or to the several State Governments on the one side and the Dominion or Provincial Governments on the other, as

the case may be, subject to all Treaty provisions now existing with respect thereto, the exclusive jurisdiction and control over the use and diversion, whether temporary or permanent, of all waters on its own side of the line which in their natural channels would flow across the boundary or into boundary waters; but it is agreed that any interference with or diversion from their natural channel of such waters on either side of the boundary resulting in any injury on the other side of the boundary shall give rise to the same rights and entitle the injured parties to the same legal remedies as if such injury took place in the country where such diversion or interference occurs; but this provision shall not apply to cases already existing or to cases expressly covered by special agreement between the parties hereto.

It is understood, however, that neither of the High Contracting Parties intends by the foregoing provision to surrender any right which it may have to object to any interference with or diversions of waters on the other side of the boundary the effect of which would be productive of material injury to the navigation interests on its own side of the boundary.

### ARTICLE 3.

It is agreed that, in addition to the uses, obstructions, and diversions heretofore permitted or hereafter provided for by special agreement between the Parties hereto, no further or other uses or obstructions or diversions, whether temporary or permanent, of boundary waters on either side of the line, affecting the natural level or flow of boundary waters on the other side of the line, shall be made except by authority of the United States or the Dominion of Canada within their respective jurisdictions and with the approval, as hereinafter provided, of a Joint Commission, to be known as the International Joint Commission.

The foregoing provisions are not intended to limit or interfere with the existing rights of the Government of the United States on the one side and the Government of the Dominion of Canada on the other, to undertake and carry on governmental works in boundary waters for the deepening of channels, the construction of breakwaters, the improvement of harbours, and other governmental works for the benefit of commerce and navigation, provided that such works are wholly on its own side of the line and do not materially affect the level or flow of the boundary waters on the other, nor are such provisions intended to interfere with the ordinary use of such waters for domestic and sanitary purposes.

#### ARTICLE 4.

The High Contracting Parties agree that, except in cases provided for by special agreement between them, they will not permit the construction or maintenance on their respective sides of the boundary of any remedial or protective works or any dams or other obstructions in waters flowing from boundary waters or in waters at a lower level than the boundary in rivers flowing across the boundary, the effect of which is to raise the natural level of waters on the other side of the boundary, unless the construction or maintenance thereof is approved by the aforesaid International Joint Commission.

It is further agreed that the waters herein defined as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other.

#### ARTICLE 5.

The High Contracting Parties agree that it is expedient to limit the diversion of waters from the Niagara River so that the level of Lake Erie and the flow of the stream shall not be appreciably affected. It is the desire of both Parties

to accomplish this object with the least possible injury to investments which have already been made in the construction of power plants on the United States' side of the river under grants of authority from the State of New York, and on the Canadian side of the river under licenses authorized by the Dominion of Canada and the Province of Ontario.

So long as this Treaty shall remain in force, no diversion of the waters of the Niagara River above the Falls from the natural course and stream thereof shall be permitted except for the purposes and to the extent hereinafter provided.

The United States may authorize and permit the diversion within the State of New York of the waters of the said river above the Falls of Niagara, for power purposes, not exceeding in the aggregate a daily diversion at the rate of 20,000 cubic feet of water per second.

The United Kingdom, by the Dominion of Canada or the Province of Ontario, may authorize and permit the diversion within the Province of Ontario of the waters of said river above the Falls of Niagara for power purposes, not exceeding in the aggregate a daily diversion at the rate of 36,000 cubic feet of water per second.

The prohibitions of this Article shall not apply to the diversion of water for sanitary or domestic purposes, or for the service of canals for the purposes of navigation.

#### ARTICLE 6.

The High Contracting Parties agree that the St. Mary and Milk Rivers and their tributaries (in the State of Montana and the Provinces of Alberta and Saskatchewan) are to be treated as one stream for the purposes of irrigation and power, and the waters thereof shall be apportioned equally between the two countries, but in making such equal apportionment more than half may be taken from one river and less than half from the other by either

country so as to afford a more beneficial use to each. It is further agreed that in the division of such waters during the irrigation season, between the 1st of April and 31st of October inclusive, annually, the United States is entitled to a prior appropriation of 500 cubic feet per second of the waters of the Milk River, or so much of such amount as constitutes three-fourths of its natural flow, and that Canada is entitled to a prior appropriation of 500 cubic feet per second of the flow of St. Mary River, or so much of such amount as constitutes three-fourths of its natural flow.

The channel of the Milk River in Canada may be used at the convenience of the United States for the conveyance, while passing through Canadian territory, of waters diverted from the St. Mary River. The provisions of Article 2 of this Treaty shall apply to any injury resulting to property in Canada from the conveyance of such waters through the Milk River.

The measurement and apportionment of the water to be used by each country shall from time to time be made jointly by the properly-constituted reclamation officers of the United States and the properly-constituted irrigation officers of His Majesty under the direction of the International Joint Commission.

#### ARTICLE 7.

The High Contracting Parties agree to establish and maintain an International Joint Commission of the United States and Canada composed of six Commissioners, three on the part of the United States appointed by the President thereof, and three on the part of the United Kingdom appointed by His Majesty on the recommendation of the Governor in Council of the Dominion of Canada.

#### ARTICLE 8.

This International Joint Commission shall have jurisdiction over and shall pass upon all cases involving the use

or obstruction or diversion of the waters with respect to which under Articles 3 and 4 of this Treaty the approval of this Commission is required, and in passing upon such cases the Commission shall be governed by the following rules or principles which are adopted by the High Contracting Parties for this purpose:—

The High Contracting Parties shall have, each on its own side of the boundary, equal and similar rights in the use of the waters hereinbefore defined as boundary waters.

The following order of precedence shall be observed among the various uses enumerated hereinafter for these waters, and no use shall be permitted which tends materially to conflict with or restrain any other use which is given preference over it in this order of precedence:—

1. Uses for domestic and sanitary purposes;
2. Uses for navigation, including the service of canals for the purposes of navigation;
3. Uses for power and for irrigation purposes.

The foregoing provisions shall not apply to or disturb any existing uses of boundary waters on either side of the boundary.

The requirement for an equal division may in the discretion of the Commission be suspended in cases of temporary diversions along boundary waters at points where such equal division cannot be made advantageously on account of local conditions, and where such diversion does not diminish elsewhere the amount available for use on the other side.

The Commission in its discretion may make its approval in any case conditional upon the construction of remedial or protective works to compensate so far as possible for the particular use or diversion proposed, and in such cases may require that suitable and adequate provision, approved by the Commission, be made for the protection and

indemnity against injury of any interests on either side of the boundary.

In cases involving the elevation of the natural level of waters on either side of the line as a result of the construction or maintenance on the other side of remedial or protective works or dams or other obstructions in boundary waters or in waters flowing therefrom or in waters below the boundary in rivers flowing across the boundary, the Commission shall require, as a condition of its approval thereof, that suitable and adequate provision, approved by it, be made for the protection and indemnity of all interests on the other side of the line which may be injured thereby.

The majority of the Commissioners shall have power to render a decision. In case the Commission is evenly divided upon any question or matter presented to it for decision, separate reports shall be made by the Commissioners on each side to their own Government. The High Contracting Parties shall thereupon endeavour to agree upon an adjustment of the question or matter of difference, and if an agreement is reached between them, it shall be reduced to writing in the form of a Protocol and shall be communicated to the Commissioners, who shall take such further proceedings as may be necessary to carry out such agreement.

#### ARTICLE 9.

The High Contracting Parties further agree that any other questions or matters of difference arising between them involving the rights, obligations, or interests of either in relation to the other or to the inhabitants of the other, along the common frontier between the United States and the Dominion of Canada, shall be referred from time to time to the International Joint Commission for examination and report, whenever either the Government of the United States or the Government of the Dominion of Canada shall request that such questions or matters of difference be so referred.

The International Joint Commission is authorized in each case so referred to examine into and report upon the facts and circumstances of the particular questions and matters referred, together with such conclusions and recommendations as may be appropriate, subject, however, to any restrictions or exceptions which may be imposed with respect thereto by the terms of the reference.

Such reports of the Commission shall not be regarded as decisions of the questions or matters so submitted either on the facts or the law, and shall in no way have the character of an arbitral award.

The Commission shall make a joint report to both Governments in all cases in which all or a majority of the Commissioners agree, and in case of disagreement the minority may make a joint report to both Governments, or separate reports to their respective Governments.

In case the Commission is evenly divided upon any question or matter referred to it for report, separate reports shall be made by the Commissioners on each side to their own Government.

#### ARTICLE 10.

Any questions or matters of difference arising between the High Contracting Parties involving the rights, obligations, or interests of the United States or of the Dominion of Canada, either in relation to each other or to their respective inhabitants, may be referred for decision to the International Joint Commission by the consent of the two Parties, it being understood that on the part of the United States any such action will be by and with the advice and consent of the Senate, and on the part of His Majesty's Government with the consent of the Governor-General in Council. In each case so referred, the said Commission is authorized to examine into and report upon the facts and circumstances of the particular questions and matters referred, together with such conclusions and recommendations as may be appropriate, subject, however, to any

restrictions or exceptions which may be imposed with respect thereto by the terms of the reference.

A majority of the said Commission shall have power to render a decision or finding upon any of the questions or matters so referred.

If the said Commission is equally divided, or otherwise unable to render a decision or finding as to any questions or matters so referred, it shall be the duty of the Commissioners to make a joint report to both Governments, or separate reports to their respective Governments, showing the different conclusions arrived at with regard to the matters or questions so referred, which questions or matters shall thereupon be referred for decision by the High Contracting Parties to an Umpire chosen in accordance with the procedure prescribed in the fourth, fifth, and sixth paragraphs of Article 45 of The Hague Convention for the pacific settlement of international disputes, dated the 18th October, 1907. Such Umpire shall have power to render a final decision with respect to those matters and questions so referred on which the Commission failed to agree.

#### ARTICLE 11.

A duplicate original of all decisions rendered and joint reports made by the Commission shall be transmitted to and filed with the Secretary of State of the United States and the Governor-General of the Dominion of Canada, and to them shall be addressed all communications of the Commission.

#### ARTICLE 12.

The International Joint Commission shall meet and organize at Washington promptly after the members thereof are appointed and when organized the Commission may fix such times and places for its meetings as may be necessary, subject at all times to special call or direction by the two Governments. Each Commissioner, upon the first joint meeting of the Commission after his appointment,

shall, before proceeding with the work of the Commission, make and subscribe a solemn declaration in writing that he will faithfully and impartially perform the duties imposed upon him under this Treaty, and such declaration shall be entered on the records of the proceedings of the Commission.

The United States' and Canadian sections of the Commission may each appoint a Secretary, and these shall act as joint Secretaries of the Commission at its joint sessions, and the Commission may employ engineers and clerical assistants from time to time as it may deem advisable. The salaries and personal expenses of the Commission and of the Secretaries shall be paid by their respective Governments, and all reasonable and necessary joint expenses of the Commission incurred by it shall be paid in equal moieties by the High Contracting Parties.

The Commission shall have power to administer oaths to witnesses and to take evidence on oath whenever deemed necessary in any proceeding, or inquiry, or matter within its jurisdiction under this Treaty, and all parties interested therein shall be given convenient opportunity to be heard, and the High Contracting Parties agree to adopt such legislation as may be appropriate and necessary to give the Commission the powers above mentioned on each side of the boundary, and to provide for the issue of subpoenas and for compelling the attendance of witnesses in proceedings before the Commission. The Commission may adopt such rules of procedure as shall be in accordance with justice and equity, and may make such examination in person and through agents or employees as may be deemed advisable.

#### ARTICLE 13.

In all cases where special agreements between the High Contracting Parties hereto are referred to in the foregoing Articles, such agreements are understood and intended to include not only direct agreements between the High Contracting Parties, but also any mutual arrangement

between the United States and the Dominion of Canada expressed by concurrent or reciprocal legislation on the part of Congress and the Parliament of the Dominion.

#### ARTICLE 14.

The present Treaty shall be ratified by His Britannic Majesty and by the President of the United States of America, by and with the advice and consent of the Senate thereof. The ratifications shall be exchanged at Washington as soon as possible, and the Treaty shall take effect on the date of the exchange of its ratifications. It shall remain in force for five years, dating from the day of exchange of ratifications, and thereafter until terminated by twelve months' written notice given by either High Contracting Party to the other.

In faith whereof the respective Plenipotentiaries have signed this Treaty in duplicate and have hereunto affixed their seals.

Done at Washington, the 11th day of January, in the year of our Lord one thousand nine hundred and nine.

(L.S.) JAMES BRYCE.  
(L.S.) ELIHU ROOT.

---

The above Treaty was approved by the United States' Senate on the 3rd March, 1909, with the following Resolutions:—

*Resolved*,—That the Senate advise and consent to the ratification of the Treaty between the United States and Great Britain, providing for the settlement of international differences between the United States and Canada, signed on the 11th day of January, 1909.

*Resolved further (as a part of this ratification)*,—That the United States approves this Treaty with the understanding that nothing in this Treaty shall be construed as

affecting, or changing, any existing territorial, or riparian rights in the water, or rights of the owners of lands under water, on either side of the international boundary at the rapids of the St. Mary's River at Sault Ste. Marie, in the use of the waters flowing over such lands, subject to the requirements of navigation in boundary waters and of navigation canals, and without prejudice to the existing right of the United States and Canada, each to use the waters of the St. Mary's River, within its own territory; and further, that nothing in this Treaty shall be construed to interfere with the drainage of wet, swamp, and overflowed lands into streams flowing into boundary waters, and that this interpretation will be mentioned in the ratification of this Treaty as conveying the true meaning of the Treaty, and will in effect, form part of the Treaty.

PROTOCOL OF EXCHANGE.

On proceeding to the exchange of the ratifications of the treaty signed at Washington on January 11, 1909, between Great Britain and the United States, relating to boundary waters and questions arising along the boundary between the United States and the Dominion of Canada, the undersigned plenipotentiaries duly authorized thereto by their respective Governments, hereby declare that nothing in this treaty shall be construed as affecting, or changing, any existing territorial, or riparian rights in the water, or rights of the owners of lands under water, on either side of the international boundary at the rapids of St. Mary's River at Sault Ste. Marie, in the use of the waters flowing over such lands, subject to the requirements of navigation in boundary waters and of navigation canals, and without prejudice to the existing right of the United States and Canada, each to use the waters of the St. Mary's River, within its own territory; and further, that nothing in this treaty shall be construed to interfere with the drainage of wet, swamp and overflowed lands into streams flowing into boundary waters, and also that this declaration shall be

deemed to have equal force and effect as the treaty itself and to form an integral part thereto.

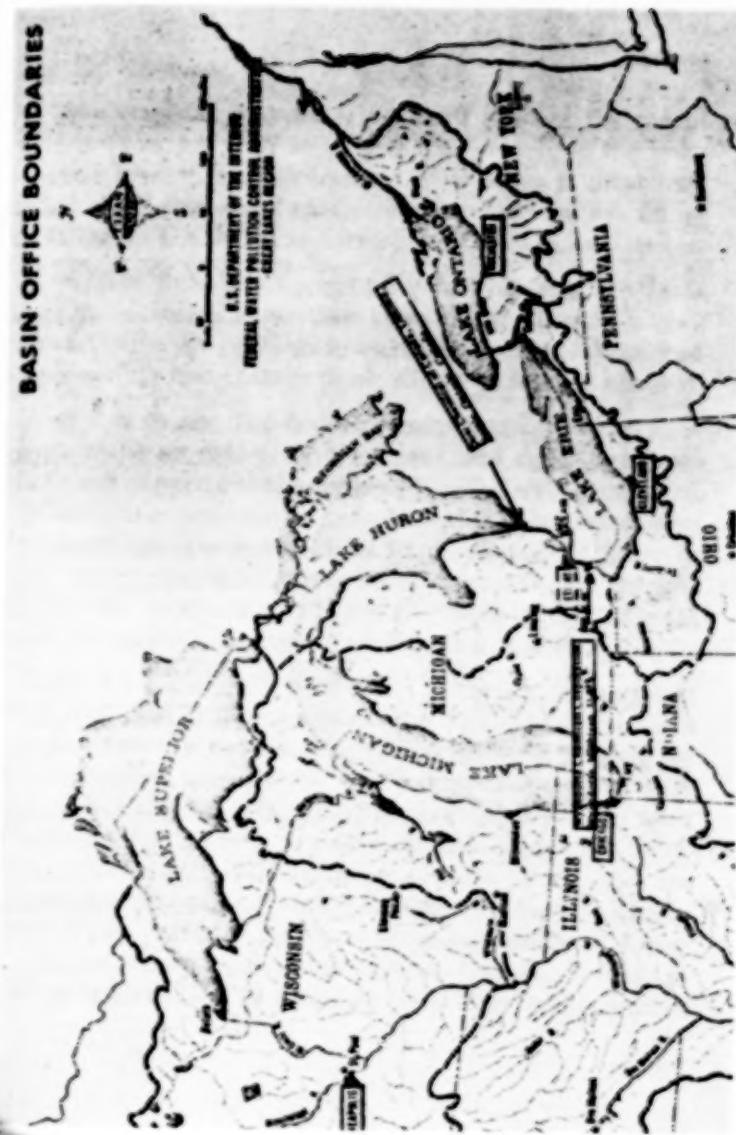
The exchange of ratifications then took place in the usual form.

In witness whereof, they have signed the present Protocol of Exchange and have affixed their seals thereto.

Done at Washington this 5th day of May, one thousand nine hundred and ten.

JAMES BRYCE, (Seal.)  
PHILANDER C. KNOX, (Seal.)

## APPENDIX IV



**APPENDIX V**

[SEAL OF THE PROVINCE OF ONTARIO]

**PRIME MINISTER OF ONTARIO**

Toronto, Ontario,  
May 15, 1970.

Dear Mr. Thomas:

I have received your letter of April 9 about the recent problem of mercury affecting fish, particularly in the Lake St. Clair area. The Government of Ontario is most concerned about this and I can assure you that we are doing all we can to see that it is corrected as quickly as possible.

I want to take this opportunity to give you the facts about the situation as we now know them. This is a very new and different problem in environmental pollution and we are finding that there is much still to be learned about it.

Methyl mercury, the organic compound of mercury, is known to be an extremely poisonous and dangerous substance and as such has always been handled with great care. The inorganic compounds and elemental or metallic mercury itself are also known to be toxic, but only if taken in much larger amounts. Until recently it was not thought that metallic mercury could be a pollutant or that it could enter the food chain and affect fish and wildlife.

There are a wide variety of uses of mercury and mercury compounds and it would just not be possible to provide a complete list. In some cases, methyl mercury is used for treating seed grains and for controlling fungus growth in golf course grasses. Its use for seed treatment has been declining as it is being replaced by less dangerous chemicals. The major industrial users of metallic mercury are certain chemical plants manufacturing chlorine and caustic soda. These factories represent the most significant potential source of mercurial contamination of water. A less significant contribution is made by pulp mills using organic

mercury compounds to inhibit the growth of slime on their processing equipment. Steps have now been taken by both these industries to prevent mercury losses in their operations. Minor amounts of mercury may also occur in effluents from municipal sewage treatment plants as a result of industrial and domestic use of products containing mercury although so far no traceable amounts have been found in tests we have made.

In the years between 1953 and 1960, and again in 1965, deaths and serious neurological disorders occurred in Japan among people who had eaten fish and shellfish contaminated by methyl mercury discharged from an organic chemical plant. Because of the decline in numbers of seed-eating birds, Sweden banned the use of methyl mercury for seed dressing in 1966 and also took steps to restrict discharges of metallic mercury from industrial plants.

These events prompted concern among authorities in Canada about the effects of mercury in the environment and in 1968 provincial and federal agencies began studies on it. Because of the general lack of knowledge in this field, new techniques had to be developed to detect the presence of mercury. In Ontario, it was confirmed in August, 1969, that the bottom sediments of the St. Clair River contained high levels of mercury, although the significance and source were unknown. Concern was intensified in September by the hunting ban imposed on upland game birds in Alberta, because the birds had accumulated significant quantities of mercury, presumably from treated seed grain. This was followed by the discovery of high levels of mercury in fish from Lake Winnipeg and a significant source of contamination was determined to be a chloralkali chemical plant located on the Saskatchewan River.

This prompted an investigation of fish and wildlife in the Lake St. Clair area by the Ontario Water Resources Commission, the Department of Lands and Forests, and the federal Department of Fisheries and Forestry through

its Fisheries Research Board. Fish samples were dispatched to a laboratory in California for testing, and late in March mercury levels in excess of .5 P.P.M. were confirmed. The federal department immediately impounded fish from this area and a ban was placed on their export. At the same time, high levels of mercury were found in fish taken from Clay Lake, on the Wabigoon River, downstream from Dryden.

After receiving this information, immediate action was taken by Ontario to request the federal government to place a fishing ban, both commercial and angling, on the following waters: the St. Clair River, Lake St. Clair, the Detroit River and part of the Wabigoon River, including Clay Lake. All companies known to be using mercury in their industrial processes were placed under Ministerial Order to take action to halt any release of mercury in plant effluents. I am told that action was immediately taken by the companies involved.

In discussions between the federal government and ourselves on methods of compensating fishermen, we agreed that the two governments would share equally in the cost of providing cash advances to fishermen pending the outcome of their efforts to obtain compensation for losses from the firms responsible for the pollution. A federal-provincial committee was established to work out details of this program.

An intensive program of testing has been undertaken by the Ontario Water Resources Commission and the federal Fisheries laboratory at Winnipeg. Arrangements are being made by federal officials to establish temporary testing facilities at Wheatley, Ontario, so that a continuous monitoring program can be undertaken on fish from the affected area. The O.W.R.C. will be carrying out a wide-ranging program of testing to see if any other areas of the province are affected.

Discussions have also been held with officials of the States of Michigan and Ohio and machinery is being established to ensure effective co-ordination with remedial programs carried on in these jurisdictions. We hope these contacts will lead to much wider co-operation in pollution problems in the Great Lakes.

It is quite apparent that the Government has moved quickly and decisively to correct this unfortunate and regrettable occurrence. It is to be hoped that action has been taken before great harm was done and that the sources of contamination will be eliminated. There would not appear to be anything to be gained by taking retaliatory measures against polluting industries, although civil actions by those directly affected may be instituted. It is much more important that everyone concerned work together to rectify the situation as quickly as possible.

I want to thank you for letting me have your views on this important subject and for giving me an opportunity to present the facts of the matter to you. I hope you will find this explanation of the situation helpful.

Yours very truly,

“JOHN P. ROBARTS”  
John P. Robarts.

Mr. G. A. M. Thomas,  
City Clerk,  
City of Sarnia,  
Ontario.

## APPENDIX VI

(SEAL OF THE ONTARIO WATER RESOURCES COMMISSION)

I, George A. Kerr, Minister of Energy and Resources Management, hereby approve pursuant to Section 50 of The Ontario Water Resources Commission, Act, R.S.O. 1960, Chapter 281 as amended, the Requirements and Direction of the Ontario Water Resources Commission hereunder.

“GEORGE A. KERR”  
George A. Kerr

## THE ONTARIO WATER RESOURCES COMMISSION

*Considering that Dow Chemical of Canada Limited owns and operates an industrial establishment for the production of caustic soda and chlorine that includes two plants known as “Chlorine I” and “Chlorine III” at Sarnia, Ontario, using as raw material brine from local salt deposits, whose operations are substantially similar;*

*And considering that the electrolytic processes in these plants utilize mercury as an electrode and in a variety of ways such plants release mercury that is a source of contamination of the environment;*

*And considering that the Company also owns and operates as part of its industrial establishment aforesaid a further plant known as “Chlorine II” that uses an electrolytic process not founded upon the utilization of mercury but that such plant draws its salt brine from salt deposits underlying the establishment and that salt deposits are subject to a measure of contamination from sludge and spent brine reintroduced into such deposits from plants “Chlorine I” and plant “Chlorine III”, with the result that plant “Chlorine II” may indirectly become a source of mercury contamination of the environment;*

*And considering that the Commission is of the opinion that the arrangements of any industrial establishment for*

the collection, transmission, treatment or disposal of its sewage are unsatisfactory if mercury is released in any quantity at all to the environment;

*And considering that* the Commission, by communications to Dow Chemical of Canada Limited dated February . . ., 1970, advised Dow Chemical of Canada Limited that it must take immediate steps to eliminate any discharge of mercury from its establishment to the water environment.

**HEREBY REQUIRES** you, Dow CHEMICAL COMPANY OF CANADA LIMITED, pursuant to the provisions of Section 50 of The Ontario Water Resources Commission Act, R.S.O. 1960, chapter 281:-

I. To make investigations and submit reports to the Commission in respect of the collection, transmission, treatment or disposal of sewage as it may from time to time direct, and without limiting the generality of the foregoing,

to investigate by sampling, analysis and flow measurement all liquid effluent streams discharging from plants Chlorine I, Chlorine II and Chlorine III and to report to the Commission on the mercury content of such effluent streams on the 1st and 15 of every month hereafter commencing the 15th day of April, 1970, until otherwise directed by the Commission.

II. To install, construct or arrange such facilities for the collection, transmission, treatment or disposal of your sewage as may be directed from time to time by the Commission, and without limiting the generality of the foregoing, on or before the 15th day of April, 1970, or on or before such later date as the Commission may designate, in the event of your applying on or before the 10th day of April, 1970, for designation by it of a later date:-

(1) to assure that all mercury contaminated condensate from hydrogen coolers, not returned to process, is treated for removal of mercury;

(2) to provide facilities to ensure that mercury-contaminated brine is not discharged to the environment under any circumstances. Such facilities may include surge tanks to store and, thus, prevent the discharge of brine under upset or shut-down and start-up conditions. In addition, all equipment such as valves, flanges and pump seals should be put in a state of repair, or if necessary replaced, to eliminate the possibility of any brine discharging due to leaks;

(3) to isolate all floor trenches, drains and sumps that may receive mercury, with resultant contamination of water so that the mercury collected therein, or water contaminated thereby, is treated and/or returned to process.

(4) to handle all sludges resulting from treatment of brine that may contain mercury so as to eliminate the possibility of the release of mercury to the environment;

(5) to dispose of any drying agent used to dry chlorine containing mercury, whether such disposal be to waste or to re-use, in such a way that no mercury will be released to the environment.

III. To maintain, keep in repair and operate such facilities as may be directed from time to time by the Commission.

DATED at Toronto this 26th day of March, 1970.

ONTARIO WATER RESOURCES COMMISSION

“D. J. COLLINS”

*Chairman*

“D. S. CAVERLY”

*General Manager.*

**APPENDIX VII**

**ONTARIO WATER RESOURCES COMMISSION**

(SEAL)

135 St. Clair Ave. W.  
Toronto 7, Ontario  
Tel. 365-6975

Water Management in Ontario

May 13, 1970.

Mr. L. M. Tod, Manager,  
Environmental Quality Control,  
Dow Chemical of Canada Limited,  
SARNIA, Ontario.

Dear Sir:

*Re: Ministerial Order of March 26, 1970*

This is to advise you that compliance with Sections I and II of this order has been executed by your Company. Section III of the order, referring to the maintenance of treatment facilities in a good state of repair and operating condition, will of course remain in effect.

With regard to the frequency of reporting under Section I of the order, it is our view that such reports should now be submitted on a monthly basis commencing June 1st, 1970. This could be included in your regular monthly analyses report.

Yours truly,

“D. P. CAPLICE”

D. P. Caplice, *P. Eng.*,  
*Director,*

*Division of Industrial Wastes.*